

## General

### Title

Controlling high blood pressure: percentage of members 18 to 85 years of age who had a diagnosis of hypertension (HTN) and whose BP was adequately controlled during the measurement year, based on age/condition-specific criteria.

### Source(s)

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 2, technical specifications for health plans. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

## Measure Domain

### Primary Measure Domain

Clinical Quality Measures: Outcome

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure is used to assess the percentage of members 18 to 85 years of age who had a diagnosis of hypertension and whose blood pressure (BP) was adequately controlled during the measurement year based on the following criteria:

Members 18 to 59 years of age whose BP was less than 140/90 mm Hg

Members 60 to 85 years of age with a diagnosis of diabetes whose BP was less than 140/90 mm Hg

Members 60 to 85 years of age without a diagnosis of diabetes whose BP was less than 150/90 mm Hg

Note: Use the Hybrid Method for this measure. A single rate is reported and is the sum of all three groups.

## Rationale

Approximately 67 million Americans have high blood pressure (Centers for Disease Control and Prevention [CDC], 2012). Treatment to improve hypertension includes dietary and lifestyle changes, as well as appropriate use of medications.

The specifications for this measure are consistent with current clinical guidelines, such as those of the United States Preventive Services Task Force (USPSTF) and the Joint National Committee (James et al., 2014).

## Evidence for Rationale

Centers for Disease Control and Prevention (CDC). Vital signs: awareness and treatment of uncontrolled hypertension among adults--United States, 2003-2010. *MMWR Morb Mortal Wkly Rep*. 2012 Sep 7;61:703-9. [PubMed](#)

James PA, Oparil S, Carter BL, Cushman WC, Dennison-Himmelfarb C, Handler J, Lackland DT, LeFevre ML, MacKenzie TD, Ogedegbe O, Smith SC Jr, Svetkey LP, Taler SJ, Townsend RR, Wright JT Jr, Narva AS, Ortiz E. 2014 evidence-based guideline for the management of high blood pressure in adults: report from the panel members appointed to the Eighth Joint National Committee (JNC 8). *JAMA*. 2014 Feb 5;311(5):507-20. [45 references] [PubMed](#)

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

## Primary Health Components

Hypertension; blood pressure

## Denominator Description

Members 18 to 85 years of age as of December 31 of the measurement year with at least one outpatient visit with a diagnosis of hypertension during the first six months of the measurement year (see the related "Denominator Inclusions/Exclusions" field)

## Numerator Description

The number of members in the denominator whose most recent blood pressure (BP) (both systolic and diastolic) is adequately controlled during the measurement year based on the following criteria:

- Members 18 to 59 years of age as of December 31 of the measurement year whose BP was less than 140/90 mm Hg

- Members 60 to 85 years of age as of December 31 of the measurement year with a diagnosis of diabetes whose BP was less than 140/90 mm Hg

- Members 60 to 85 years of age as of December 31 of the measurement year without a diagnosis of diabetes whose BP was less than 150/90 mm Hg

See the related "Numerator Inclusions/Exclusions" field.

# Evidence Supporting the Measure

## Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

## Additional Information Supporting Need for the Measure

- Known as the "silent killer," high blood pressure, or hypertension, increases the risk of heart disease and stroke, which are the leading causes of death in the United States (U.S) (Centers for Disease Control and Prevention [CDC], 2012).
- The medical costs of high blood pressure total more than \$46 billion annually. This number could increase to \$274 billion by 2030 (Mozaffarian et al., 2015).
- In 2011, there were 65,123 deaths attributable to high blood pressure. From 2001 to 2011, the death rate attributable to high blood pressure increased 13.2 percent (Mozaffarian et al., 2015).
- Approximately one in three U.S. adults, or about 70 million people, have high blood pressure, but only about half (52 percent) of these people have it under control (CDC, 2015).
- Controlling high blood pressure is an important step in preventing heart attacks, stroke and kidney disease, and in reducing the risk of developing other serious conditions (James et al., 2014). Health care providers and plans can help individuals manage their high blood pressure by prescribing medications and encouraging low-sodium diets, increased physical activity and smoking cessation.

## Evidence for Additional Information Supporting Need for the Measure

Centers for Disease Control and Prevention (CDC). About high blood pressure. [internet]. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2012 [accessed 2014 Jul 07].

Centers for Disease Control and Prevention (CDC). High blood pressure. [internet]. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2015 Feb 19

James PA, Oparil S, Carter BL, Cushman WC, Dennison-Himmelfarb C, Handler J, Lackland DT, LeFevre ML, MacKenzie TD, Ogedegbe O, Smith SC Jr, Svetkey LP, Taler SJ, Townsend RR, Wright JT Jr, Narva AS, Ortiz E. 2014 evidence-based guideline for the management of high blood pressure in adults: report from the panel members appointed to the Eighth Joint National Committee (JNC 8). JAMA. 2014 Feb 5;311(5):507-20. [45 references] [PubMed](#)

Mozaffarian D, Benjamin EJ, Go AS, Arnett DK, Blaha MJ, Cushman M, de Ferranti S, Despres JP, Fullerton HJ, Howard VJ, Huffman MD, Judd SE, Kissela BM, Lackland DT, Lichtman JH, Lisabeth LD, Liu S, Mackey RH, Matchar DB, McGuire DK, Mohler ER, Moy CS, Muntner P, Mussolino ME, Nasir K, Neumar RW, Nichol G, Palaniappan L, Pandey DK, Reeves MJ, Rodriguez CJ, Sorlie PD, Stein J, Towfighi A, Turan TN, Virani SS, Willey JZ, Woo D, Yeh RW, Turner MB, American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics-2015 update: a report from the American Heart Association. Circulation. 2015 Jan 27;131(4):e29-322. [PubMed](#)

National Committee for Quality Assurance (NCQA). The state of health care quality 2015. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. 205 p.

## Extent of Measure Testing

All HEDIS measures undergo systematic assessment of face validity with review by measurement advisory panels, expert panels, a formal public comment process and approval by the National Committee for Quality Assurance's (NCQA's) Committee on Performance Measurement and Board of Directors. Where applicable, measures also are assessed for construct validity using the Pearson correlation test. All measures undergo formal reliability testing of the performance measure score using beta-binomial statistical analysis.

## Evidence for Extent of Measure Testing

Rehm B. (Assistant Vice President, Performance Measurement, National Committee for Quality Assurance, Washington, DC). Personal communication. 2015 Mar 16. 1 p.

## State of Use of the Measure

### State of Use

Current routine use

### Current Use

not defined yet

## Application of the Measure in its Current Use

### Measurement Setting

Ambulatory/Office-based Care

Hospital Outpatient

Managed Care Plans

### Professionals Involved in Delivery of Health Services

not defined yet

### Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

### Statement of Acceptable Minimum Sample Size

Specified

### Target Population Age

Age 18 to 85 years

## Target Population Gender

Either male or female

# National Strategy for Quality Improvement in Health Care

## National Quality Strategy Aim

Better Care

## National Quality Strategy Priority

Prevention and Treatment of Leading Causes of Mortality

# Institute of Medicine (IOM) National Health Care Quality Report Categories

## IOM Care Need

Getting Better

Living with Illness

## IOM Domain

Effectiveness

# Data Collection for the Measure

## Case Finding Period

The first six months of the measurement year

## Denominator Sampling Frame

Enrollees or beneficiaries

## Denominator (Index) Event or Characteristic

Clinical Condition

Encounter

## Denominator Time Window

not defined yet

## Denominator Inclusions/Exclusions

### Inclusions

Members 18 to 85 years of age as of December 31 of the measurement year with at least one outpatient visit (Outpatient Without UBREV Value Set) with a diagnosis of hypertension (HTN) (Essential Hypertension Value Set) during the first six months of the measurement year

To confirm the diagnosis of hypertension, the organization must find notation of one of the following in the medical record anytime during the member's history on or before June 30 of the measurement year:

HTN

High blood pressure (HBP)

Elevated blood pressure (↑BP)

Borderline HTN

Intermittent HTN

History of HTN

Hypertensive vascular disease (HVD)

Hyperpiesia

Hyperpiesis

It does not matter if hypertension was treated or is currently being treated. Refer to the original measure documentation for further details.

### Note:

Members must have been continuously enrolled during the measurement year.

*Allowable Gap:* No more than one gap in continuous enrollment of up to 45 days during the measurement year. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage.

*Diabetes Flag for Numerator Assessment.* After the Eligible Population is identified, assign each member either a *diabetic* or *not diabetic* flag. The flag is used to determine the appropriate BP threshold to use during numerator assessment (the threshold for members with diabetes is different than the threshold for members without diabetes).

Assign a flag of *diabetic* to members who were identified as diabetic using claim/encounter data or pharmacy data. The organization must use both methods to assign the diabetes flag, but a member only needs to be identified by one methods. Members may be identified as having diabetes during the measurement year or the year prior to the measurement year.

*Claim/encounter data.* Members who met any of the following criteria during the measurement year or the year prior to the measurement year (count services that occur over both years):

At least two outpatient visits (Outpatient Value Set), observation visits (Observation Values Set), ED visits (ED Value Set) or nonacute inpatient encounters (Nonacute Inpatient Value Set) on different dates of service, with a diagnosis of diabetes (Diabetes Value Set). Visit type need not be the same for the two visits.

At least one acute inpatient encounter (Acute Inpatient Value Set) with a diagnosis of diabetes (Diabetes Value Set).

*Pharmacy data.* Members who were dispensed insulin or hypoglycemics/antihyperglycemics on an ambulatory basis during the measurement year or the year prior to the measurement year (refer to Table CDC-A in the original measure documentation for a list of prescriptions to identify members with diabetes).

Assign a flag of *not diabetic* to members who do not have a diagnosis of diabetes (Diabetes Value Set), in any setting, during the measurement year or year prior to the measurement year and who had a diagnosis of gestational diabetes or steroid-induced diabetes (Diabetes Exclusions Value Set), in any setting, during the measurement year or the year prior to the measurement year.

### Exclusions

Exclude from the eligible population all members with evidence of end stage renal disease (ESRD) (ESRD Value Set; ESRD Obsolete Value Set) or kidney transplant (Kidney Transplant Value Set) on or prior to December 31 of the measurement year. Documentation in the medical record must include a dated note indicating evidence of ESRD, kidney transplant or dialysis. (*Optional*)

Exclude from the eligible population all members with a diagnosis of pregnancy (Pregnancy Value Set) during the measurement year. (*Optional*)

Exclude from the eligible population all members who had a nonacute inpatient admission during the measurement year. To identify nonacute inpatient admissions: *(Optional)*

Identify all acute and nonacute inpatient stays (Inpatient Stay Value Set).

Confirm the stay was for nonacute care based on the presence of a nonacute code (Nonacute Inpatient Stay Value Set) on the claim.

Identify the admission date for the stay.

#### Value Set Information

Measure specifications reference value sets that must be used for HEDIS reporting. A value set is the complete set of codes used to identify the service(s) or condition(s) included in the measure. Refer to the [NCQA Web site](#)  to purchase HEDIS Volume 2, which includes the Value Set Directory.

## Exclusions/Exceptions

not defined yet

## Numerator Inclusions/Exclusions

#### Inclusions

The number of members in the denominator whose most recent blood pressure (BP) (both systolic and diastolic) is adequately controlled during the measurement year based on the following criteria:

Members 18 to 59 years of age as of December 31 of the measurement year whose BP was less than 140/90 mm Hg

Members 60 to 85 years of age as of December 31 of the measurement year and flagged with a diagnosis of diabetes whose BP was less than 140/90 mm Hg

Members 60 to 85 years of age as of December 31 of the measurement year and flagged as not having a diagnosis of diabetes whose BP was less than 150/90 mm Hg

To determine if a member's BP is adequately controlled, the representative BP must be identified.

*Note: Representative BP:* The most recent BP reading during the measurement year (as long as it occurred after the diagnosis of hypertension). If multiple BP measurements occur on the same date, or are noted in the chart on the same date, use the lowest systolic and lowest diastolic BP reading. If no BP is recorded during the measurement year, assume that the member is "not controlled."

#### Exclusions

Do not include BP readings:

Taken during an acute inpatient stay or an emergency department (ED) visit

Taken during an outpatient visit which was for the sole purpose of having a diagnostic test or surgical procedure performed (e.g., sigmoidoscopy, removal of a mole)

Obtained the same day as a major diagnostic or surgical procedure (e.g., electrocardiogram [EKG/ECG], stress test, administration of intravenous [IV] contrast for a radiology procedure, endoscopy)

Reported by or taken by the member

The member is not compliant if the BP reading does not meet the specified threshold or is missing, or if there is no BP reading during the measurement year or if the reading is incomplete (e.g., the systolic or diastolic level is missing).

#### Value Set Information

Measure specifications reference value sets that must be used for HEDIS reporting. A value set is the complete set of codes used to identify the service(s) or condition(s) included in the measure. Refer to the [NCQA Web site](#)  to purchase HEDIS Volume 2, which includes the Value Set Directory.

## Numerator Search Strategy

Fixed time period or point in time

## Data Source

Administrative clinical data

Paper medical record

## Type of Health State

Physiologic Health State (Intermediate Outcome)

## Instruments Used and/or Associated with the Measure

Unspecified

## Computation of the Measure

### Measure Specifies Disaggregation

Does not apply to this measure

## Scoring

Rate/Proportion

## Interpretation of Score

Desired value is a higher score

## Allowance for Patient or Population Factors

not defined yet

## Description of Allowance for Patient or Population Factors

This measure requires that separate rates be reported for commercial, Medicaid, and Medicare product lines.

## Standard of Comparison

not defined yet

## Identifying Information



## Original Title

Controlling high blood pressure (CBP).

## Measure Collection Name

HEDIS 2016: Health Plan Collection

## Measure Set Name

Effectiveness of Care

## Measure Subset Name

Cardiovascular Conditions

## Submitter

National Committee for Quality Assurance - Health Care Accreditation Organization

## Developer

National Committee for Quality Assurance - Health Care Accreditation Organization

## Funding Source(s)

Unspecified

## Composition of the Group that Developed the Measure

National Committee for Quality Assurance's (NCQA's) Measurement Advisory Panels (MAPs) are composed of clinical and research experts with an understanding of quality performance measurement in the particular clinical content areas.

## Financial Disclosures/Other Potential Conflicts of Interest

In order to fulfill National Committee for Quality Assurance's (NCQA's) mission and vision of improving health care quality through measurement, transparency and accountability, all participants in NCQA's expert panels are required to disclose potential conflicts of interest prior to their participation. The goal of this Conflict Policy is to ensure that decisions which impact development of NCQA's products and services are made as objectively as possible, without improper bias or influence.

## Endorser

National Quality Forum - None

## NQF Number

not defined yet

## Date of Endorsement

2013 Apr 3

## Core Quality Measures

Accountable Care Organizations (ACOs), Patient Centered Medical Homes (PCMH), and Primary Care Cardiology

## Measure Initiative(s)

Physician Quality Reporting System

## Adaptation

This measure was not adapted from another source.

## Date of Most Current Version in NQMC

2015 Oct

## Measure Maintenance

Unspecified

## Date of Next Anticipated Revision

Unspecified

## Measure Status

This is the current release of the measure.

This measure updates previous versions:

National Committee for Quality Assurance (NCQA). HEDIS 2015: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2014. various p.

National Committee for Quality Assurance (NCQA). HEDIS 2015: Healthcare Effectiveness Data and Information Set. Vol. 2, technical specifications for health plans. Washington (DC): National Committee for Quality Assurance (NCQA); 2014. various p.

## Measure Availability

Source available for purchase from the [National Committee for Quality Measurement \(NCQA\) Web site](#)

For more information, contact NCQA at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Phone: 202-955-3500; Fax: 202-955-3599; Web site: [www.ncqa.org](http://www.ncqa.org) .

## Companion Documents

The following are available:

National Committee for Quality Assurance (NCQA). The state of health care quality 2015. Washington (DC): National Committee for Quality Assurance (NCQA); 2015 Oct. 205 p.  
National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 2, technical update. Washington (DC): National Committee for Quality Assurance (NCQA); 2015 Oct 1. 12 p.

For more information, contact the National Committee for Quality Assurance (NCQA) at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Phone: 202-955-3500; Fax: 202-955-3599; Web site: [www.ncqa.org](http://www.ncqa.org) .

## NQMC Status

This NQMC summary was completed by ECRI on July 18, 2003. The information was verified by the measure developer on August 29, 2003.

This NQMC summary was updated by ECRI on June 16, 2006. The updated information was not verified by the measure developer.

This NQMC summary was updated by ECRI Institute on February 19, 2008. The information was verified by the measure developer on April 24, 2008.

This NQMC summary was updated by ECRI Institute on March 10, 2009. The information was verified by the measure developer on May 29, 2009.

This NQMC summary was updated by ECRI Institute on January 22, 2010 and on February 16, 2011.

This NQMC summary was retrofitted into the new template on June 29, 2011.

This NQMC summary was updated by ECRI Institute on May 16, 2012, April 1, 2013, January 10, 2014, December 30, 2014, and again on January 11, 2016.

## Copyright Statement

This NQMC summary is based on the original measure, which is subject to the measure developer's copyright restrictions.

Content adapted and reproduced with permission from the National Committee for Quality Assurance (NCQA). HEDIS® is a registered trademark of NCQA. HEDIS measures and specifications were developed by and are owned and copyrighted by NCQA. HEDIS measures and specifications are not clinical guidelines and do not establish a standard of medical care. NCQA makes no representations, warranties, or endorsement about the quality of any organization or physician that uses or reports performance measures and NCQA has no liability to anyone who relies on such measures or specifications. Limited proprietary coding is contained in the measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. NCQA disclaims all liability for use or accuracy of any coding contained in the specifications.

Anyone desiring to use or reproduce the measure abstracts without modification for a non-commercial purpose may do so without obtaining any approval from NCQA. All commercial uses of the measure abstracts must be approved by NCQA and are subject to a license at the discretion of NCQA. To purchase

copies of the full measures and specifications, which contain additional distribution and use restrictions, contact NCQA Customer Support at 888-275-7585 or visit [www.ncqa.org/publications](http://www.ncqa.org/publications)

## Production

### Source(s)

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 2, technical specifications for health plans. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

## Disclaimer

### NQMC Disclaimer

The National Quality Measures Clearinghouse<sup>®</sup> (NQMC) does not develop, produce, approve, or endorse the measures represented on this site.

All measures summarized by NQMC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public and private organizations, other government agencies, health care organizations or plans, individuals, and similar entities.

Measures represented on the NQMC Web site are submitted by measure developers, and are screened solely to determine that they meet the [NQMC Inclusion Criteria](#).

NQMC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or its reliability and/or validity of the quality measures and related materials represented on this site. Moreover, the views and opinions of developers or authors of measures represented on this site do not necessarily state or reflect those of NQMC, AHRQ, or its contractor, ECRI Institute, and inclusion or hosting of measures in NQMC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding measure content are directed to contact the measure developer.